

## CERTIFICATE OF TRANSMISSION BY FACSIMILE (37CFR1.8)

**PLEASE DELIVER TO EXAMINER TUAN T. DINH**Docket No. END920000087US1 (IEN-10-5540)Applicant(s): Hall et al

Serial No.                      Filing Date                      Examiner                      Group Art Unit

09/811.101                      March 16, 2001                      Tuan T. Dinh                      2827

FAX RECEIVED

MAR - 7 2003

Invention: MULTI-LAYERED HIGH DENSITY CONNECTIONS

TECHNOLOGY CENTER 2800

I hereby certify that this **Proposed Amendment After Final containing a marked up version of the claims** is being transmitted via facsimile to the United States Patent and Trademark Office under the provisions of the electronic application processing prototype period.

Fax. No. 703-872-9319

on

March 7, 2003  
(Date)14  
(No. of pages)

TO:                      Examiner Dinh

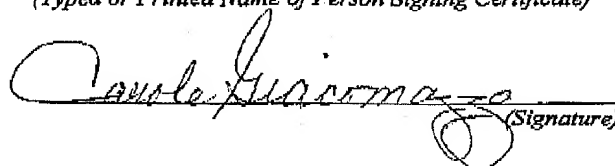
Attached is an Amendment After Final containing a marked up version of the claims being filed in response to your Office action of January 9, 2003.

It is not believed that any fees are required. However, the Commissioner is hereby authorized to charge payment of fees associated with this communication, or credit any overpayment, to Deposit Account No. 09-0457.

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**ELECTRONIC APPLICATION PROCESSING PROTOTYPE****PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re PATENT APPLICATION of Hall et al

Serial No. 09/811,101

Art Unit 2827

Filed: March 16, 2001

Examiner Dinh

Title: **MULTI-LAYERED HIGH DENSITY  
CONNECTIONS**

Conf. No. 8303

Atty. Docket No. END920000087US1 (IEN-10-5540)

**PROPOSED AMENDMENT after FINAL****FAX RECEIVED**

MAR - 7 2003

Assistant Commissioner for Patents  
Washington, D.C. 20231

TECHNOLOGY CENTER 2800

Dear Sir:

This amendment is being filed in response to the FINAL office action dated January 9, 2003. Applicants are submitting this amendment under the provisions of the electronic application processing prototype program.

Accordingly, each section will begin on a separate sheet.

END920000087US1 (IEN-10-5540)

Received from &lt;440 205 3601&gt; at 3/7/03 3:00:13 PM [Eastern Standard Time]

**AMENDMENTS TO THE CLAIMS****In the Claims:**

Kindly amend claim 1 as shown below wherein all claims and their status have been indicated:

1. (Currently Amended) An electronic sub assembly comprising a circuitized laminated substrate having top and bottom surfaces, and at least one beveled edge surface between said top and bottom surfaces, at least one active or passive device mounted on said at least one edge surface, at least one other active or passive device mounted on at least one of the top and bottom surfaces, a conductive lead embedded in the substrate electrically connected to ~~an~~ the active or passive device mounted on said at least one edge surface, the conductive lead also electrically connected to the at least one device on the top or bottom surface.

2. (Original) The sub assembly according to claim 1 wherein each of the active or passive devices is selected from the group including chips, diodes, resistors, capacitors and printed wiring boards.

3. (Original) The sub assembly according to claim 1 further including an electrically conductive via extending into the substrate from each

device on the top or bottom surface into contact with a conductive lead connected to an edge mounted device.

4. (Original) The sub assembly according to claim 1 wherein the laminated substrate is selected from the group comprising a single or multiple laminates of a fiberglass reinforced prepreg and a conductive layer, and a single or multiple laminates of a ceramic module and a conductive layer.

8. (Previously amended) A printed circuit board having two spaced apart, generally parallel surfaces comprising a top surface and a bottom surface, a beveled edge surface between said top and bottom surfaces, a plurality of conductive leads embedded in the circuit board parallel to the top and bottom surfaces and terminating in one or more connection points along the beveled edge surface, an active or passive device mounted on said edge surface and electrically joined through at least one of said connection points to at least one of the conductive leads, and at least one other active or passive device mounted on the top or bottom surface electrically joined through one of said conductive leads to the edge mounted device.

9. (Original) The printed circuit board according to claim 8 further including a via on the top or bottom surface, and coupled to a top or bottom

mounted device, said via extending into the substrate into contact with a conductive lead connected to said edge mounted device.

10. (Original) The printed circuit board according to claim 8 wherein each active or passive device is selected from the group including chips, diodes, resistors, capacitors and printed wiring boards.

27. (Added by previous amendment after filing) The electronic sub assembly according to claim 1 wherein the edge surface is beveled at an angle of between 30° and 60° with respect to the top or bottom surface.

28. (Added by previous amendment after filing) The printed circuit board according to claim 8 wherein the edge surface is beveled at an angle of between 30° and 60° with respect to the top or bottom surface.